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Leu Leu Trp Ala Pro Ala Leu Ser Leu Leu Ala Gly Thr Val Pro Ser
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Glu Pro Pro Ser Ala Cys Ala Ser Asp Pro Cys Ala Pro Gly Thr Glu
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Cys Gln Ala Thr Glu Ser Gly Gly Tyr Thr Cys Gly Pro Met Glu Pro
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       Cys His His Gly Ala Thr Cys Arg Asn Leu Ala Asp Arg Tyr Glu Cys
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       His Cys Pro Leu Gly Tyr Ala Gly Val Thr Cys Glu Met Glu Val Asp
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       Glu Cys Ala Ser Ala Pro Cys Leu His Gly Gly Ser Cys Leu Asp Gly
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       Val Gly Ser Phe Arg Cys Val Cys Ala Pro Gly Tyr Gly Gly Thr Arg
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                   195             200             205

       Gly Thr Cys His Asp Leu Val Asn Gly Phe Arg Cys Asp Cys Ala Gly
 35        210             215             220

       Thr Gly Tyr Glu Gly Thr His Cys Glu Arg Glu Val Leu Glu Cys Ala
       225             230             235             240
 40
       Ser Ala Pro Cys Glu His Asn Ala Ser Cys Leu Glu Gly Leu Gly Ser
                   245             250             255

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       Phe Arg Cys Leu Cys Trp Pro Gly Tyr Ser Gly Glu Leu Cys Glu Val
                   260             265             270

 50    Asp Glu Asp Glu Cys Ala Ser Ser Pro Cys Gln His Gly Gly Arg Cys
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       Pro Gly Ala Phe Ser Phe Arg His Ala Ala Gly Phe Leu Cys His Cys
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         Val Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro
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40       Ala Thr Leu Gln Ala Thr Leu Trp Ser Tyr Ser Thr Thr Val Leu Val
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         Leu Arg Leu Pro Asp Leu Ala Leu Asn Asp Gly His Trp His Gln Val
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         Glu Val Val Leu His Leu Ala Thr Leu Glu Leu Arg Leu Trp His Glu
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         Gly Cys Pro Ala Arg Leu Cys Val Ala Ser Gly Pro Val Ala Leu Ala
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         Ser Thr Ala Ser Ala Thr Pro Leu Pro Ala Gly Ile Ser Ser Ala Gln
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Cys Glu Arg Arg Glu Gln Cys Arg Pro Leu Pro Cys Val His Gly Gly
            580             585             590

Ser Cys Val Asp Leu Trp Thr His Phe Arg Cys Asp Cys Ala Arg Pro
        595             600             605

His Arg Gly Pro Thr Cys Ala Asp Glu Ile Pro Ala Ala Thr Phe Gly
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Leu Gly Gly Ala Pro Ser Ser Ala Ser Phe Leu Leu Gln Glu Leu Pro
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Gly Pro Asn Leu Thr Val Ser Phe Leu Leu Arg Thr Arg Glu Ser Ala
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Gly Leu Leu Leu Gln Phe Ala Asn Asp Ser Ala Ala Gly Leu Thr Val
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Phe Leu Ser Glu Gly Arg Ile Arg Ala Glu Ala Pro Gly Ser Pro Ala
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Val Val Leu Pro Gly Arg Trp Asp Asp Gly Leu Arg His Leu Val Met
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Leu Ser Phe Gly Pro Asp Gln Leu Gln Asp Leu Gly Gln His Val His
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Val Gly Gly Arg Leu Leu Ala Ala Asp Ser Gln Pro Trp Gly Gly Pro
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Phe Arg Gly Cys Leu Gln Asp Leu Arg Leu Asp Gly Cys His Leu Pro
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Gly Arg Gln Ser Trp Asn Leu Thr Ala Gly Cys Val Ser Glu Asp Met
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      Ala Gln Gln Leu Trp Cys Pro Gly Gln Pro Cys Leu Pro Pro Ala Thr
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      Cys Glu Glu Val Pro Asp Gly Phe Val Cys Val Ala Glu Ala Thr Phe
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      Arg Leu Leu Gly Gly Leu Ser Leu Ala Phe Arg Thr Arg Asp Ser Glu
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      Ala Trp Leu Leu Arg Ala Ala Ala Gly Ala Leu Glu Gly Val Trp Leu
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      Ala Val Arg Asn Gly Ser Leu Ala Gly Gly Val Arg Gly Gly His Gly
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      Ser Arg Trp Leu Leu Trp Leu Asp Gly Ala Ala Thr Pro Val Ala Leu
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      Arg Gly Leu Ala Ser Asp Leu Gly Phe Leu Gln Gly Pro Gly Ala Val
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      Arg Ile Leu Leu Ala Glu Asn Phe Thr Gly Cys Leu Gly Arg His Phe
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       Cys Ala  Arg Gly Arg Cys His  Thr His Pro Asp Gly  Arg Phe Glu
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       Cys Arg  Cys Pro Pro Gly Phe  Gly Gly Pro Arg Cys  Arg Leu Pro
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       Val Pro  Ser Lys Glu Cys Ser  Leu Asn Val Thr Cys  Leu Asp Gly
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       Gly Val  Ser Glu Cys Ile Cys  Asn Ala Arg Phe Ser  Gly Gln Phe
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       Cys Glu  Val Ala Lys Gly Leu  Pro Leu Pro Leu Pro  Phe Pro Leu
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      Pro Gln Gly Pro Asp Pro Asn Gly Phe Arg Cys Tyr Cys Val Pro Gly
              50                  55                  60

40    Phe Gln Gly Pro Arg Cys Glu Leu Asp Ile Asp Glu Cys Ala Ser Arg
      65                  70                  75                  80

45    Pro Cys His His Gly Ala Thr Cys Arg Asn Leu Ala Asp Arg Tyr Glu
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      Asp Glu Cys Ala Ser Ala Pro Cys Leu His Gly Gly Ser Cys Leu Asp
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      Gly Val Gly Ser Phe Arg Cys Val Cys Ala Pro Gly Tyr Gly Gly Thr
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         Ala Ser Ala Pro Cys Glu His Asn Ala Ser Cys Leu Glu Gly Leu Gly
    20                   195                 200                 205


         Ser Phe Arg Cys Leu Cys Trp Pro Gly Tyr Ser Gly Glu Leu Cys Glu
    25       210                 215                 220


         Val Asp Glu Asp Glu Cys Ala Ser Ser Pro Cys Gln His Gly Gly Arg
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         Cys Leu Gln Arg Ser Asp Pro Ala Leu Tyr Gly Gly Val Gln Ala Ala
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         Phe Pro Gly Ala Phe Ser Phe Arg His Ala Ala Gly Phe Leu Cys His
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         Cys Pro Pro Gly Phe Glu Gly Pro Thr Cys Glu Glu Asp Val Asp Glu
    40       275                 280                 285


         Cys Leu Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val
    40       290                 295                 300


         Ala Gly Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys
    45   305                 310                 315                 320


         Ser Val Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala
    50                   325                 330                 335


         Thr Cys Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His
                         340                 345                 350


    55   Cys Pro Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe
                         355                 360                 365
```

```
        Ser Val Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly
            370             375             380

5
        Pro Leu Gly Leu Ala Leu Arg Phe Arg Thr Thr Leu Pro Ala Gly Thr
        385             390             395             400

10
        Leu Ala Thr Arg Asn Asp Thr Lys Glu Ser Leu Glu Leu Ala Leu Val
                    405             410             415

15      Ala Ala Thr Leu Gln Ala Thr Leu Trp Ser Tyr Ser Thr Thr Val Leu
                    420             425             430

        Val Leu Arg Leu Pro Asp Leu Ala Leu Asn Asp Gly His Trp His Gln
20          435             440             445

        Val Glu Val Val Leu His Leu Ala Thr Leu Glu Leu Arg Leu Trp His
            450             455             460
25
        Glu Gly Cys Pro Ala Arg Leu Cys Val Ala Ser Gly Pro Val Ala Leu
        465             470             475             480

30
        Ala Ser Thr Ala Ser Ala Thr Pro Leu Pro Ala Gly Ile Ser Ser Ala
                    485             490             495

35      Gln Leu Gly Asp Ala Thr Phe Ala Gly Cys Leu Gln Asp Val Arg Val
                    500             505             510

        Asp Gly His Leu Leu Leu Pro Glu Asp Leu Gly Glu Asn Val Leu Leu
40          515             520             525

        Gly Cys Glu Arg Arg Glu Gln Cys Arg Pro Leu Pro Cys Val His Gly
            530             535             540
45
        Gly Ser Cys Val Asp Leu Trp Thr His Phe Arg Cys Asp Cys Ala Arg
        545             550             555             560

50
        Pro His Arg Gly Pro Thr Cys Ala Asp Glu Ile Pro Ala Ala Thr Phe
                    565             570             575

55      Gly Leu Gly Gly Ala Pro Ser Ser Ala Ser Phe Leu Leu Gln Glu Leu
                    580             585             590
```

```
     Pro Gly Pro Asn Leu Thr Val Ser Phe Leu Leu Arg Thr Arg Glu Ser
         595                 600                 605

 5   Ala Gly Leu Leu Leu Gln Phe Ala Asn Asp Ser Ala Ala Gly Leu Thr
         610                 615                 620

     Val Phe Leu Ser Glu Gly Arg Ile Arg Ala Glu Ala Pro Gly Ser Pro
10   625                 630                 635                 640

     Ala Val Val Leu Pro Gly Arg Trp Asp Asp Gly Leu Arg His Leu Val
                     645                 650                 655
15

     Met Leu Ser Phe Gly Pro Asp Gln Leu Gln Asp Leu Gly Gln His Val
                 660                 665                 670
20

     His Val Gly Gly Arg Leu Leu Ala Ala Asp Ser Gln Pro Trp Gly Gly
                 675                 680                 685

25   Pro Phe Arg Gly Cys Leu Gln Asp Leu Arg Leu Asp Gly Cys His Leu
         690                 695                 700

     Pro Phe Phe Pro Leu Pro Leu Asp Asn Ser Ser Gln Pro Ser Glu Leu
30   705                 710                 715                 720

     Gly Gly Arg Gln Ser Trp Asn Leu Thr Ala Gly Cys Val Ser Glu Asp
                     725                 730                 735
35

     Met Cys Ser Pro Asp Pro Cys Phe Asn Gly Gly Thr Cys Leu Val Thr
                 740                 745                 750
40

     Trp Asn Asp Phe His Cys Thr Cys Pro Ala Asn Phe Thr Gly Pro Thr
                 755                 760                 765

45   Cys Ala Gln Gln Leu Trp Cys Pro Gly Gln Pro Cys Leu Pro Pro Ala
         770                 775                 780

     Thr Cys Glu Glu Val Pro Asp Gly Phe Val Cys Val Ala Glu Ala Thr
50   785                 790                 795                 800

     Phe Arg Glu Gly Pro Pro Ala Ala Phe Ser Gly His Asn Ala Ser Ser
                     805                 810                 815
55

     Gly Arg Leu Leu Gly Gly Leu Ser Leu Ala Phe Arg Thr Arg Asp Ser
                 820                 825                 830
```

```
       Glu Ala Trp Leu Leu Arg Ala Ala Ala Gly Ala Leu Glu Gly Val Trp
               835             840             845
  5


       Leu Ala Val Arg Asn Gly Ser Leu Ala Gly Gly Val Arg Gly Gly His
           850             855             860
 10
       Gly Leu Pro Gly Ala Val Leu Pro Ile Pro Gly Pro Arg Val Ala Asp
       865             870             875             880


 15    Gly Ala Trp His Arg Val Arg Leu Ala Met Glu Arg Pro Ala Ala Ala
                   885             890             895


       Thr Ser Arg Trp Leu Leu Trp Leu Asp Gly Ala Ala Thr Pro Val Ala
 20            900             905             910


       Leu Arg Gly Leu Ala Ser Asp Leu Gly Phe Leu Gln Gly Pro Gly Ala
               915             920             925
 25
       Val Arg Ile Leu Leu Ala Glu Asn Phe Thr Gly Cys Leu Gly Arg His
           930             935             940

 30
       Phe Ala Ser Trp Pro Gly Thr Pro Ala Pro Ile Leu Gly Cys Arg Gly
       945             950             955             960


 35    Ala Pro Val Cys Ala Pro Ser Pro Cys Leu His Asp Gly Ala Cys Arg
                   965             970             975


       Asp Leu Phe Asp Ala Phe Ala Cys Ala Cys Gly Pro Gly Trp Glu Gly
 40            980             985             990


       Pro Arg Cys Glu Ala His Val Asp  Pro Cys His Ser Ala  Pro Cys Ala
               995             1000             1005
 45
       Arg Gly  Arg Cys His Thr His  Pro Asp Gly Arg Phe  Glu Cys Arg
           1010             1015             1020

 50
       Cys Pro  Pro Gly Phe Gly Gly  Pro Arg Cys Arg Leu  Pro Val Pro
           1025             1030             1035


 55    Ser Lys  Glu Cys Ser Leu Asn  Val Thr Cys Leu Asp  Gly Ser Pro
           1040             1045             1050
```

```
     Cys Glu  Gly Gly Ser Pro Ala  Ala Asn Cys Ser Cys  Leu Glu Gly
         1055             1060             1065

 5   Leu Ala  Gly Gln Arg Cys Gln  Val Pro Thr Leu Pro  Cys Glu Ala
         1070             1075             1080

     Asn Pro  Cys Leu Asn Gly Gly  Thr Cys Arg Ala Ala  Gly Gly Val
10       1085             1090             1095

     Ser Glu  Cys Ile Cys Asn Ala  Arg Phe Ser Gly Gln  Phe Cys Glu
         1100             1105             1110

15
     Val Ala  Lys Gly Leu Pro Leu  Pro Leu Pro Phe Pro  Leu Leu Glu
         1115             1120             1125

20
     Val Ala  Val Pro Ala Ala Cys  Ala Cys Leu Leu Leu  Leu Leu Leu
         1130             1135             1140

25   Gly Leu  Leu Ser Gly Ile Leu  Ala Ala Arg Lys Arg  Arg Gln Ser
         1145             1150             1155

     Glu Gly  Thr Tyr Ser Pro Ser  Gln Gln Glu Val Ala  Gly Ala Arg
30       1160             1165             1170

     Leu Glu  Met Asp Ser Val Leu  Lys Val Pro Pro Glu  Glu Arg Leu
         1175             1180             1185

35
     Ile

40
```